

# HNF-3 $\alpha$ (Q-6): sc-101058

## BACKGROUND

HNF-1 ( $\alpha$  and  $\beta$ ), HNF-3 ( $\alpha$ ,  $\beta$  and  $\gamma$ ), HNF-4 ( $\alpha$  and  $\gamma$ ) and HNF-6 compose, in part, a homeoprotein family designated the hepatocyte nuclear factor family. The various HNF-1 isoforms regulate transcription of genes in the liver as well as in other tissues such as kidney, small intestine and thymus. HNF-3 $\alpha$ , HNF-3 $\beta$  and HNF-3 $\gamma$  regulate the transcription of numerous hepatocyte genes in adult liver. HNF-3 $\alpha$  and HNF-3 $\beta$  have also been shown to be involved in gastrulation events such as body axis formation. HNF-4 $\alpha$  and HNF-4 $\gamma$  have been shown to be important for early embryo development. HNF-4 $\alpha$  is expressed in liver, kidney, pancreas, small intestine, testis and colon; HNF-4 $\gamma$  is expressed in each of these tissues except liver. HNF-6 has been shown to bind to the promoter of HNF-3 $\beta$ , which indicates a potential role of HNF-6 in gut endoderm epithelial cell differentiation. Evidence suggests that HNF-6 may also be a transcriptional activator for at least 22 other hepatocyte-enriched genes, including cytochrome P450 2C13 and  $\alpha$ -1 antitrypsin.

## CHROMOSOMAL LOCATION

Genetic locus: FOXA1 (human) mapping to 14q21.1; Foxa1 (mouse) mapping to 12 C1.

## SOURCE

HNF-3 $\alpha$  (Q-6) is a mouse monoclonal antibody raised against recombinant HNF-3 $\alpha$  of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

HNF-3 $\alpha$  (Q-6) is recommended for detection of HNF-3 $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HNF-3 $\alpha$  siRNA (h): sc-37930, HNF-3 $\alpha$  siRNA (m): sc-37931, HNF-3 $\alpha$  shRNA Plasmid (h): sc-37930-SH, HNF-3 $\alpha$  shRNA Plasmid (m): sc-37931-SH, HNF-3 $\alpha$  shRNA (h) Lentiviral Particles: sc-37930-V and HNF-3 $\alpha$  shRNA (m) Lentiviral Particles: sc-37931-V.

Molecular Weight of HNF-3 $\alpha$ : 50 kDa.

Positive Controls: HNF-3 $\alpha$  (h2): 293T Lysate: sc-128813, Hep G2 cell lysate: sc-2227 or HeLa nuclear extract: sc-2120.

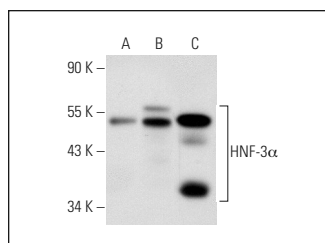
## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

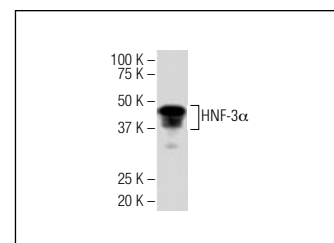
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



HNF-3 $\alpha$  (Q-6): sc-101058. Western blot analysis of HNF-3 $\alpha$  expression in non-transfected: sc-117752 (A) and human HNF-3 $\alpha$  transfected: sc-128813 (B) 293T whole cell lysates and HeLa nuclear extract (C).



HNF-3 $\alpha$  (Q-6): sc-101058. Western blot analysis of HNF-3 $\alpha$  expression in Hep G2 whole cell lysate.

## SELECT PRODUCT CITATIONS

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- Zhang, Y., et al. 2015. Involvement of aberrant miR-139/Jun feedback loop in human gastric cancer. *Biochim. Biophys. Acta* 1853: 481-488.
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- Piggin, C.L., et al. 2016. ELF5 isoform expression is tissue-specific and significantly altered in cancer. *Breast Cancer Res.* 18: 4.
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- Espinal, A.C., et al. 2017. FOXA1 hypermethylation: link between parity and ER-negative breast cancer in African American women? *Breast Cancer Res. Treat.* 166: 559-568.
- Fishwick, C., et al. 2017. Heterarchy of transcription factors driving basal and luminal cell phenotypes in human urothelium. *Cell Death Differ.* 24: 809-818.
- Giadone, R.M., et al. 2018. A library of ATTR amyloidosis patient-specific induced pluripotent stem cells for disease modelling and *in vitro* testing of novel therapeutics. *Amyloid* 21: 1-8.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.